

LISTING OF THE CLAIMS:

Claims 1-22 (cancelled)

23. (Amended) An electrical contact to a region of a silicon-containing substrate comprising:

a substrate having an exposed region of a silicon-containing semiconductor material; and

a first layer of metal disilicide which includes an additive or Ge, wherein said metal of said disilicide is selected from the group consisting of Ti, Co and mixtures thereof, and said exposed region of said substrate and said first layer are separated by a Si-Ge interlayer, where said Si-Ge interlayer has a Ge concentration ranging from about .01 atomic percent to about 9.0 atomic percent.

24. (Withdrawn)

25. (Original) The electrical contact of Claim 23 wherein said silicon-containing semiconductor material comprises single crystal Si, polycrystalline Si, SiGe, amorphous Si or a silicon-on-insulator (SOI).

26. (Original) The electrical contact of Claim 23 wherein said metal of said disilicide is Co and said metal silicide is Co disilicide.

27. (Original) The electrical contact of Claim 23 wherein said metal of said disilicide is Ti and said metal silicide is TiSi_2 .

28. (Original) The electrical contact of Claim 27 wherein said TiSi_2 is in the C54 phase.

Claims 29-30 (Cancelled)

31. (Original) The electrical contact of Claim 23 wherein said substrate is doped.

Cancel
32. (Original) The electrical contact of Claim 24 wherein said silicon-containing semiconductor material comprises single crystal Si, polycrystalline Si, SiGe, amorphous Si or a silicon-on-insulator (SOI).

33. (Original) The electrical contact of Claim 24 further comprising an oxide layer present near a surface of said substrate.

34. (Original) The electrical contact of Claim 33 wherein said oxide layer has a thickness of from about 0.1 to about 3.0 nm.

35. (Original) The electrical contact of Claim 24 wherein said substrate is doped.

36. (Previously added) The electrical contact of Claim 23 wherein said additive is selected from the group consisting of C, Al, Si, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Y, Zr, Nb, Mo, Ru, Rh, Pd, In, Sn, La, Hf, Ta, W, Re, Ir, Pt, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu and mixtures thereof.

37. (Previously added) The electrical contact of Claim 36 wherein said additive is C, Al, Si, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Y, Zr, Nb, Mo, Ru, Rh, Pd, In, Sn, La, Hf, Ta, W, Re, Ir, Pt or mixtures thereof

38. (Previously added) The electrical contact of Claim 37 wherein said additive is Si, Ti, V, Cr, Ni, Nb, Rh, Ta, Re, Ir or mixtures thereof.

39. (Previously added) The electrical contact of Claim 23 wherein said additive is present in said metal disilicide in an amount of from about 0.01 to about 50 atomic percent.

40. (Previously added) An electrical contact to a region of a silicon-containing substrate comprising:

a substrate having an exposed region of a silicon-containing semiconductor material; and
a first layer of metal disilicide having lateral edges, wherein said metal of said disilicide is selected from the group consisting of Ti, Co and mixtures thereof, and said exposed region of said substrate and said first layer are separated by a Si-Ge interlayer, said Si-Ge interlayer having lateral edges which do not substantially extend beyond the lateral edges of the metal disilicide.

41. (currently added) The electrical contact of Claim 23 wherein said Ge concentration ranges from about 0.01 atomic percent to about 2.0 atomic percent.
